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EXAMINER	
MCLOUGHLIN, MICHAEL I	
ART UNIT	**PAPER NUMBER**
2662	9

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/678,338	CHAMBERS, L. DAVID	
	Examiner	Art Unit	
	Michael I McLoughlin	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 October 2001* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4 and 8* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding claims, 1, 5, 6, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31, 35, 35, and 40 the word "couplable" renders the claim indefinite because the examiner can find the definition for couple, but cannot find any dictionary that defines "couplable" See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Pullen et al. (U.S. 6,119,173), hereinafter referred to as Pullen, and for details on the distributed telecommunications system Self et al. (5,495,484) that is incorporated in Pullen by reference (see lines 8-12 of column 3), hereinafter referred to as Self.

3. Regarding claims 1, 11, and 21, Pullen discloses a distributed switching platform, method, and means couplable to an Internet Protocol (IP) network (AIN service platform as shown in figure 1 of Self couplable to an IP network via external LAN of figure 2B and lines 59-

62 of column 2 in Pullen, and see network controller 46 is coupled to an external LAN 48 on line 64 of Pullen), comprising;

A main control unit (MCU) couplable to said IP network and configured to generate call and control processing commands (service unit 12 and delivery units 14 of figure 2A in Pullen with message handlers 62 and 66 as shown in figure 3 in Pullen configured to generate call and control commands detailed beginning on line 65 of column 9 and continuing through line 3 of column 19 in Pullen, also these units are shown as common control unit 60 in figure 6 in Self);

A switching partition couplable to said IP network and including

- An input-output distributor IOD (distributed center stage switching sub-system 18 shown in figure 3 in Self and also shown as the ADM in figure 2 in Self), and
- A circuit-switched matrix and line interface coupled to said IOD (line connection switching 14 with switch 22 and line interfaces A, B, C, D coupled to center sate 18 in figure 3 in Self) and configured to provide an interface to a plurality of access nodes (configured to provide an interface to a plurality of access nodes such as the external devices shown connected to the ADM 20 via the radio bank and channel banks in figure 6 of Self), said IOD configured to convey said call and control processing commands to said circuit-switched matrix and line interface to control access to said plurality of access nodes (see common control element 60 of figure 6).

4. Regarding claims 2, 12, and 22 Pullen further discloses that the distributed switching platform, method, and means as recited in claims 1, 11, and 21 wherein said MCU and said

switching partition are adapted to communicate employing a User Datagram Protocol UDP (see implemented by ethernet segments utilizing the UDP/IP protocol in lines 22-24 of column 3 in Pullen).

5. Regarding claims 3, 13, and 23 Pullen further discloses that the distributed switching platform, method, and means as recited in claims 1, 11, and 21 wherein said MCU and said switching partition are geographically separable (Pullen discloses the service unit 12 and the delivery unit 14 shown in figure 1 of Pullen that are identical to those shown in figure 1 of Self as call and control functions/software independent of their physical location and leaves the details of the hardware platform to Self. Although hardware details in Self shows these functions residing in the integrated common control element 60 of figure 6 that would not be geographically separable from the switching partition, Self also discloses these call and control functions in figure 5 in a manner that is independent of the physical location, and further discloses that the basis for these call and control functions is a programmable application computing environment or PACE in lines 37-39 that may use a stand alone computer and not require that the common control element 60 rather than be integrated. This PACE architecture allows physical separation of the MCU and switching platform in a similar manner to the separate operations systems as shown in figure 5 of Self)

6. Regarding claims 4, 14, and 24 Pullen further discloses that the distributed switching p platform, method, and means as recited in claims 1, 11, and 21 where ones of said access nodes are selected from the group consisting of:

- A digital instrument (ISDN BRI instrument in figure 6 in Self);
- An analog instrument (see POTS telephone in figure 6 in Self);

- A digital trunk (digital trunk as a B channel of the ISDN PRI to 56 or a digital trunk to the other networks in figure 6 in Self); and
- An analog trunk (an analog trunk to other networks in figure 6 in Self using conventional wireline technology in lines 64-67 of column 7 of Self).

Examiners note: With several access nodes being show in figure 6 in Self, examples are included for each member of the group in the bulleted items above for clarity, and the examiner would point out that all the access nodes shown in this figure 6 fall within the group of this claim.

7. Regarding claims 5, 15, and 25 Pullen further discloses that the distributed switching platform, method, and means as recited in claims 1, 11, and 21 further comprising an application server couplable to and configured to communicate with said MCU (application layer functions are disclosed as 92 in figure 4 in Pullen, and although integrated these functions could be in a separate application server in a similar manner to the separation of the MCU and the switching platform cited above in claim 3).

8. Regarding claims 6, 16, and 26 Pullen further discloses that the distributed switching platform, method, means, and an enterprise call center as recited in claims 1, 11, and 21, wherein said MCU is a primary MCU, said distributed switching platform further comprising a secondary MCU couplable to said IP network (Pullen discloses a primary and secondary application in figure 4 and in lines 24-64, that is also termed primary/standby in lines 28-29 of column 5 where this is singular application that is run on the service unit 12. and an associated delivery unit 14, see lines 12-13 of column 5. Primary/secondary and primary/standby classes indicate the application runs with one primary instance as the main active application and another instance of the same application is allowed to fun as a backup copy, see lines 44-48 of column 5).

9. Regarding claims 7, 17, and 27 Pullen further discloses that the distributed switching platform, method, and means as recited in claims 6, 16, and 26 wherein said primary and secondary MCUs are geographically separated (As shown in figure 1 of Pullen, the service unit 12 which is a primary MCU and an associated delivery unit 14 is the secondary MCU that are geographically separated).

10. Regarding claims 8, 18, and 28 Pullen further discloses that the distributed switching platform, method, and means as recited in claims 6, 16, and 26 wherein only one of said primary and secondary MCUs is configured to provide said call and control commands at any time (Primary/secondary and primary/standby classes indicate the application runs with one primary instance as the main active application and another instance of the same application is allowed to run as a backup copy, see lines 44-48 of column 5 in Pullen), said one of said primary and secondary MCUs being in control of said distributed switching platform (distributed telecommunications switching system 10 includes a service unit 12 that provides control and management of an AIN service platform, see lines 58-62 of column 2 in Pullen).

11. Regarding claims 9, 19, and 29 Pullen further discloses that the distributed switching p platform, method, and means as recited in claims 8, 18, and 28 wherein said one of said primary and secondary MCUs which is in control of said distributed switching platform is configured to update a database associated with said other one of said primary and secondary MCUs (service unit 12 coordinates task reassignment and message re-routing with the delivery unit 14, see lines 42-43 in column 1 in Pullen; and see the standby application may maintain tight synchronization with the primary instance, and in the event the primary exits, the standby may become the

primary instance without any additional initialization or synchronization, in lines 53-57 in column 5 in Pullen).

12. Regarding claims 10, 20, and 30 Pullen further discloses that the distributed switching platform, method, and means as recited in claims 1, 11, and 21, further comprising a second switching partition couplable to said IP network (couplable to an IP network via external LAN of figure 2B and lines 59-62 of column 2 in Pullen, and see network controller 46 is coupled to an external LAN 48 on line 64 of Pullen) and including:

- A second IOD (the distributed center stage switching sub-system 18 shown in figure 3 in Self and also shown as the ADM of figure 2 in Self resides in each node of figure 1 in Pullen), and
- A second circuit-switched matrix and line interface coupled to said second IOD (line connection switching 14 with switch 22 and line interfaces A, B, C, D coupled to center sate 18 in figure 3 in Self residing at each node of figure 1 in Pullen) and configured to provide an interface to said plurality of access nodes (configured to provide an interface via the radio bank and channel banks to a plurality of access nodes connected shown in figure 6 in Self).

13. Claims 31-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Pullen, and for details on the distributed telecommunications system Self that is incorporated in Pullen by reference (see lines 8-12 of column 3).

14. Regarding claim 31, The examiner cannot find any precise definition of an "enterprise call center" or a "call center", but finds standard telephony switches being used for call centers, as such the examiner interprets that Pullen's distributed telecommunications can serve an enterprise call center application with AIN. Thus, Pullen discloses an enterprise call center couplable to an Internet Protocol (IP) network (AIN service platform as shown in figure 1 of Self couplable to an IP network via external LAN of figure 2B and lines 59-62 of column 2 in Pullen, and see network controller 46 is coupled to an external LAN 48 on line 64 of Pullen), comprising;

A main control unit (MCU) couplable to said IP network and configured to generate call and control processing commands (service unit 12 and delivery units 14 of figure 2A in Pullen with message handlers 62 and 66 as shown in figure 3 in Pullen configured to generate call and control commands detailed beginning on line 65 of column 9 and continuing through line 3 of column 19 in Pullen, also these units are shown as common control unit 60 in figure 6 in Self);

A switching partition couplable to said IP network and including

- An input-output distributor IOD (distributed center stage switching sub-system 18 shown in figure 3 in Self and also shown as the ADM in figure 2 in Self), and
- A circuit-switched matrix and line interface coupled to said IOD (line connection switching 14 with switch 22 and line interfaces A, B, C, D coupled to center sate 18 in figure 3 in Self) and configured to provide an interface to a plurality of access nodes (configured to provide an interface to a plurality of access nodes such as the external devices shown connected to the ADM 20 via the radio bank

and channel banks in figure 6 of Self), said IOD configured to convey said call and control processing commands to said circuit-switched matrix and line interface to control access to said plurality of access nodes (see common control element 60 of figure 6).

15. Regarding claim 32 Pullen further discloses that the enterprise call center as recited in claim 31 wherein said MCU and said switching partition are adapted to communicate employing a User Datagram Protocol UDP (see implemented by ethernet segments utilizing the UDP/IP protocol in lines 22-24 of column 3 in Pullen).

16. Regarding claim 33 Pullen further discloses that the enterprise call center as recited in claim 31 wherein said MCU and said switching partition are geographically separable (Pullen discloses the service unit 12 and the delivery unit 14 shown in figure 1 of Pullen that are identical to those shown in figure 1 of Self as call and control functions/software independent of their physical location and leaves the details of the hardware platform to Self. Although hardware details in Self shows these functions residing in the integrated common control element 60 of figure 6 that would not be geographically separable from the switching partition, Self also discloses these call and control functions in figure 5 in a manner that is independent of the physical location, and further discloses that the basis for these call and control functions is a programmable application computing environment or PACE in lines 37-39 that may use a stand alone computer and not require that the common control element 60 rather than be integrated. This PACE architecture allows physical separation of the MCU and switching platform in a similar manner to the separate operations systems as shown in figure 5 of Self)

17. Regarding claim 34 Pullen further discloses that the enterprise call center as recited in claim 31 where ones of said access nodes are selected from the group consisting of:

- A digital instrument (ISDN BRI instrument in figure 6 in Self);
- An analog instrument (see POTS telephone in figure 6 in Self);
- A digital trunk (digital trunk as a B channel of the ISDN PRI to 56 or a digital trunk to the other networks in figure 6 in Self); and
- An analog trunk (an analog trunk to other networks in figure 6 in Self using conventional wireline technology in lines 64-67 of column 7 of Self).

Examiners note: With several access nodes being show in figure 6 in Self, examples are included for each member of the group in the bulleted items above for clarity, and the examiner would point out that all the access nodes shown in this figure 6 fall within the group of this claim.

18. Regarding claim 35 Pullen further discloses that the enterprise call center as recited in claim 31 further comprising an application server couplable to and configured to communicate with said MCU (application layer functions are disclosed as 92 in figure 4 in Pullen, and although integrated these functions could be in a separate application server in a similar manner to the separation of the MCU and the switching platform cited above in claim 3).

19. Regarding claim 36 Pullen further discloses that the enterprise call center as recited in claim 31 wherein said MCU is a primary MCU, said distributed switching platform further comprising a secondary MCU couplable to said IP network (Pullen discloses a primary and secondary application in figure 4 and in lines 24-64, that is also termed primary/standby in lines 28-29 of column 5 where this is singular application that is run on the service unit 12. and an associated delivery unit 14, see lines 12-13 of column 5. Primary/secondary and

primary/standby classes indicate the application runs with one primary instance as the main active application and another instance of the same application is allowed to fun as a backup copy, see lines 44-48 of column 5).

20. Regarding claim 37 Pullen further discloses that the enterprise call center as recited in claim 36 wherein said primary and secondary MCUs are geographically separated (As shown in figure 1 of Pullen, the service unit 12 which is a primary MCU and an associated delivery unit 14 is the secondary MCU that are geographically separated).

21. Regarding claim 38 Pullen further discloses that the enterprise call center as recited in claim 36 wherein only one of said primary and secondary MCUs is configured to provide said call and control commands at any time (Primary/secondary and primary/standby classes indicate the application runs with one primary instance as the main active application and another instance of the same application is allowed to run as a backup copy, see lines 44-48 of column 5 in Pullen), said one of said primary and secondary MCUs being in control of said distributed switching platform (distributed telecommunications switching system 10 includes a service unit 12 that provides control and management of an AIN service platform, see lines 58-62 of column 2 in Pullen).

22. Regarding claim 39 Pullen further discloses that the enterprise call center as recited in claim 38 wherein said one of said primary and secondary MCUs which is in control of said distributed switching platform is configured to update a database associated with said other one of said primary and secondary MCUs (service unit 12 coordinates task reassignment and message re-routing with the delivery unit 14, see lines 42-43 in column 1 in Pullen; and see the standby application may maintain tight synchronization with the primary instance, and in the

event the primary exits, the standby may become the primary instance without any additional initialization or synchronization, in lines 53-57 in column 5 in Pullen).

23. Regarding claim 40 Pullen further discloses that the enterprise call center as recited in claims 1, 11, 21, 31 further comprising a second switching partition couplable to said IP network (couplable to an IP network via external LAN of figure 2B and lines 59-62 of column 2 in Pullen, and see network controller 46 is coupled to an external LAN 48 on line 64 of Pullen) and including:

- A second IOD (the distributed center stage switching sub-system 18 shown in figure 3 in Self and also shown as the ADM of figure 2 in Self resides in each node of figure 1 in Pullen), and
- A second circuit-switched matrix and line interface coupled to said second IOD (line connection switching 14 with switch 22 and line interfaces A, B, C, D coupled to center sate 18 in figure 3 in Self residing at each node of figure 1 in Pullen) and configured to provide an interface to said plurality of access nodes (configured to provide an interface via the radio bank and channel banks to a plurality of access nodes connected shown in figure 6 in Self).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Stepheson et al. (U.S. 6, 049,545), System and method for message communications in a distributed telecommunications switch.

2) Rizzetto (U.S. 6,614,902), Call-center call routing.

3) Draginich (U.S. 6,560,329), Automated call routing system.

4) Sonesh et al. (U.S. 6,614,783), Multimedia telecommunication automatic call distribution system using Internet/PSTN call routing.

5) Breuckheimer (U.S. 6,496,508), Communication system architecture and method of establishing a communication connection therein.

6) Starvic (U.S. 6,625,751), Software fault tolerant computer system.

7) Chen et al. (U.S. 5,943,408), Flexible direct signalling system.

8) Hayball (U.S. 6,385,196), Communication system architecture and a management control agent and operating protocol, therefor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael I McLoughlin whose telephone number is 703-308-7911. The examiner can normally be reached on weekdays 7AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

MIM

December 19, 2003

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
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